1. An arc-quenching composition being at least 70% organic by weight and comprising melamine, fiber and a binder.

2. The arc-quenching composition of claim 1 wherein said fiber is organic.

3. The arc-quenching composition of claim 2 wherein said fiber is selected from the group of acrylic, polyester, nylon, rayon, cotton, cellulose and mixtures thereof.

4. The arc-quenching composition of claim 1 wherein said binder comprises a thermosetting resin.

5. The arc-quenching composition of claim ~~4~~ 1 wherein said thermosetting resin is selected from the group consisting of cycloaliphatic epoxy resin, ~~biphenyl~~ bisphenol-A epoxy resin and mixtures thereof.

6. The arc-quenching composition of claim 1 comprising melamine by weight in the range of 5-30%.

7. The arc-quenching composition of claim 1 wherein said binder comprises an epoxy resin and a curing agent.

8. The arc-quenching composition of claim 1 wherein said fiber is acrylic.

9. The arc-quenching composition of claim 1 comprising melamine by weight in the range of 5-30%, a thermosetting resin mix by weight in the range of 20-80%, and acrylic fiber by weight in the range of 10-70%.

10. An electrical circuit interrupting device comprising an insulating body defining a surface adapted to be disposed along a path of an electric arc, said surface having the composition as defined in claim 1.

11. A method of quenching an electric arc comprising disposing the composition of claim 1 in close proximity to the arc such that the heat transferred from the arc to the composition causes a sufficient quantity of deionizing and extinguishing gas to be emitted from the composition to quench the arc.

12. A method of extinguishing an electric arc comprising disposing the composition of claim 1 along the path of an electric arc thereby causing an arc-extinguishing gas to evolve from said composition to extinguish said arc.

13. An arc-quenching composition comprising fiber material supported in a resin mixture, said resin mixture being at least 70% organic material by weight and comprising an arc-quenching compound, said arc-quenching compound being selected from the group consisting of melamine, benzoguanamine, dithioammelide, ammeline, and a cyanuric halide, and mixtures thereof.

14. The arc-quenching composition of claim 13 comprising 10-30% by weight of said arc-quenching compound.

15. The arc-quenching composition of claim ~~14~~ 13 wherein said fiber material is organic.

16. An arc-quenching composition comprising by weight melamine in the range of 10-30%, fiber in the range of 5-30%, and a binder in the range of 20-80%.

17. The arc-quenching composition of claim ~~16~~ 13 wherein said fiber Material is acrylic.

18. The arc-quenching composition of claim ~~16~~ 13 wherein said arc-quenching compound comprises melamine ~~is~~ present by weight in the range of 17-21%.

19. The arc-quenching composition of claim 18 wherein said ~~binder~~ thermosetting resin comprises ~~bisphenyl~~ bisphenol-A epoxy resin and a curing agent which in combination are present by weight in the range of 50-60%.

20. The arc-quenching composition of claim 19 wherein said fiber Material comprises acrylic present by weight in the range of 20-30%.

21. In an electric circuit including an electric arc forming arrangement, an arc-interrupting composition disposed along the path of the arc, said composition being at least 70% organic by weight and comprising fiber, a binder and a filler comprising melamine.

22. A fuse tube having an elongated tubular body having at least an inner wall thereof formed of an arc-quenching material, said arc-extinguishing material being at least 70% organic by weight and comprising melamine, ~~fiber and a~~ binder comprising a thermosetting resin.

23. A multiple layered laminate having an arc-quenching surface layer being at least 70% organic by weight and comprising melamine, fiber and a binder comprising a thermosetting resin.

Sub A3

24. A fuse tube having a multiple layered laminate construction including an inner arc-quenching surface layer comprised of a wound filamentous fiber material supported in a matrix comprising a thermosetting resin and melamine, and also including at least one outer layer of filament wound glass fiber reinforced thermosetting resin, said outer layer being bonded to said inner arc-quenching surface layer whereby no dielectric or mechanical interface is present between said inner and outer layers, said inner arc-quenching surface layer comprising at least 10% by weight melamine and being at least 70% by weight organic material.

25. The fuse tube of claim 24 wherein said thermosetting resin comprises bisphenol ~~bisphenyl~~ A epoxy resin.

26. The fuse tube of claim 25 wherein said filamentous material ~~fiber~~ is selected from the group of acrylic, polyester, nylon, rayon, cotton, cellulose and mixtures thereof.

27. A method for quenching arcs in the bore of a fuse tube resulting from a wide current range including low currents and high currents, the bore having a predetermined taper at one end thereof and comprising an effective amount of arc-quenching compound, the method comprising providing a sufficient quantity of the arc-quenching compound in the bore so as to effectively interrupt arcs resulting at the low currents and defining the predetermined taper based on the quantity of the arc-quenching compound so as to prevent gas stagnation due to gas generated by the quantity of the arc-quenching compound at the high currents.

Sub A4

28. A fuse tube having an arc-quenching bore for interrupting arcs resulting from a wide current range including low currents and high currents, the bore having a predetermined

taper at one end thereof and comprising fiber, an effective amount of arc-quenching compound and a binder, said arc-quenching compound being present in sufficient quantity by weight in said arc-quenching bore so as to effectively interrupt arcs resulting at the low currents and said predetermined taper being sufficiently high to prevent gas stagnation due to gas generated by said arc-quenching compound at the high currents.

29. The fuse tube of claim 28 wherein said arc-quenching compound comprises melamine.

30. The fuse tube of claim 29 wherein said melamine is present by weight in said arc-quenching bore in the range of 10-25%.

31. The fuse tube of claim 30 wherein binder comprises a thermosetting resin.

32. The fuse tube of claim 31 wherein said thermosetting resin is selected from the group consisting of cycloaliphatic epoxy resin, bisphenyl-A epoxy resin and mixtures thereof.

33. The fuse tube of claim 28 wherein said taper is defined by an included angle in the range of 1-3 degrees as measured between the end of the tube and the inception point of the taper.

34. A fuse tube having an elongated tubular body comprised of a wound filamentous fiber material supported ~~in a matrix~~ comprising a thermosetting resin and defining a bore and a wall thickness having a predetermined uniformity.

35. The fuse tube of claim 34 further comprising a predetermined taper along at least a portion of said bore so as to define a minimum wall thickness at one point thereof, said predetermined uniformity defining variations in the wall thickness that are significantly less than said minimum wall thickness.

36. A method of fabricating an arc-quenching tube via the winding of a first fiber in one or more winding passes, the method comprising winding the arc-quenching tube such that the first fiber lays flat and does not overlap in each of the one or more winding passes whereby uniformity is achieved in the thickness of the tube.

37. The method of claim 36 further comprising forming a predetermined taper within the arc-quenching tube.

38. The method of claim 37 wherein the predetermined taper defines a minimum predetermined wall thickness of the tube, the uniformity being such that variations in the thickness of the tube are significantly less than the minimum predetermined wall thickness.

39. The method of claim 36 further comprising the winding of a second fiber in one or more winding passes over the first fiber, the second fiber being different from the first fiber, the method further comprising winding such that the second fiber lays flat and does not overlap in each of the one or more winding passes whereby uniformity is achieved in the thickness of the tube.